PATENT
Customer No. 58,982
Attorney Docket No. 08350.1659

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)	
	)	
Brian R. JANES et al.	)	Group Art Unit: 3652
	)	
Application No.: 10/028,580	)	Examiner: Michael S. Lowe
	)	
Filed: December 20, 2001	)	
	)	
For: LOAD BEARING MEMBER ARRANGEMENT AND METHOD	)	Confirmation No.: 3268

Mail Stop Appeal Brief--Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

TRANSMITTAL OF APPEAL BRIEF (37 C.F.R. 41.37)

Transmitted herewith is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on April 11, 2006.

This application is on behalf of

☐ Small Entity ☒ Large Entity

Pursuant to 37 C.F.R. 41.20(b)(2), the fee for filing the Appeal Brief is:

☐ $250.00 (Small Entity)

☒ $500.00 (Large Entity)

TOTAL FEE DUE:

Appeal Brief Fee	$500.00
Extension Fee (if any)	$0
Total Fee Due	$500.00

☒ Enclosed is a check for $500.00 to cover the above fees.

PETITION FOR EXTENSION. If any extension of time is necessary for the filing of this Appeal Brief, and such extension has not otherwise been requested, such an extension is hereby requested, and the Commissioner is authorized to charge necessary fees for such an extension to our Deposit Account No. 06-0916.

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: June 12, 2006

By: _____
Wenye Tan
Reg. No. 55,662

PATENT
Customer No. 58,982
Attorney Docket No. 08350.1659

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER BOARD RULE § 41.37

In support of the Notice of Appeal filed April 11, 2006, and further to Board Rule 41.37, Appellants present this brief and enclose herewith a check for the fee of $500.00 required under 37 C.F.R. § 41.20(b)(2).

This Appeal responds to the January 11, 2006, final rejection of claims 1, 4-14, 31-34, 47, and 48.

If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 06-0916.

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Real Party In Interest

Caterpillar Inc. is the real party in interest.

Related Appeals and Interferences

Appellants previously filed a Notice of Appeal on February 24, 2005, and an Appeal Brief on April 22, 2005, in the present application. The prosecution was reopened with an Office Action mailed July 18, 2005, by the Examiner without an Examiner's answer. Appellants continued the prosecution by filing a response to the Office Action mailed July 18, 2005. No decision was rendered regarding the previous Appeal.

There are currently no other appeals or interferences of which Appellants, Appellants' legal representative, or Assignee are aware that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status Of Claims

Claims 1, 4-14, 31-34, and 36-48 are currently pending with claims 36-46 withdrawn from consideration, and claims 2, 3, 15-30, and 35 have been canceled. Claims 1, 4-14, 31-34, 47, and 48 are finally rejected. The final rejections of claims 1, 4-14, 31-34, 47, and 48 are appealed.

Status Of Amendments

The claims have not been amended since the final Office Action mailed on January 11, 2006.

Summary Of Claimed Subject Matter

One embodiment of the invention, as recited in independent claim 1, for example, includes a load bearing arrangement 105 for use with a work machine 100 of the type having a platform 101. The arrangement includes a first load bearing member 106 structured and arranged for coupling to the platform 101 and a second load bearing member 107 structured and arranged for coupling to the first load bearing member. (Fig. 1, para. [17]). The second load bearing member 107 includes an end 111 comprising a material having a first yield strength. An aperture 606 is formed in the end and having an aperture wall 803. At least one support member 801 is contained within the aperture adjacent to at least a portion of the aperture wall. The support member includes an opening sized to receive a bearing 802 and having a second yield strength greater than the first yield strength. (Figs. 6 & 8, para. [29]).

Another embodiment of the invention, as recited in independent claim 12, for example, includes a load bearing arrangement 105 for use with a work machine 100 of the type having a platform 101. The load bearing arrangement includes at least one load bearing member 106 structured and arranged for coupling to the platform. (Fig. 1, paras. [17]-[18]). The load bearing member comprises a first side 200a and a second side 200b. (Fig. 2, para. [19]). Further, one of the first side and the second side comprises a plurality of side plates 400 and 404; each said side plate having a centerline axis 401, 405. (Fig. 4, para. [23]). At least two adjacent side plates, each having a different thickness, on one of the first side or the second side are coupled together such that the centerline axis of each side plate are colinear. (Fig. 4, para. [23]).

Another embodiment of the invention, as recited in independent claim 31, for example, includes a work machine having a load bearing arrangement similar to that recited in independent claim 1. Further, another embodiment of the invention, as recited in independent claim 47, for example, also includes a load bearing member similar to that recited in independent claim 1.

Grounds of Rejection

I. Claims 1, 4, 11, 12, 13, 47, and 48 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

II. Claims 4, 11, 47, and 48 stand rejected under 35 U.S.C. § 101 as overlapping two different statutory classes of invention (apparatus and process/method).

III. Claims 1, 4-9, 11, 13, 14, 31-34, 47, and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,611,657 to Peterson ("Peterson") in view of U.S. Patent No. 5,503,234 to Liston (hereinafter "Liston").

IV. Claim 10 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Peterson in view of Liston and further in view of U.S. Patent No. 3,902,295 to Yancy ("Yancy").

V. Claims 4, 11, and 48 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Peterson in view of U.S. Patent No. 6,060,682 to Westbroek et al. ("Westbroek") and further in view of El Wakil, Processing and Design for Manufacturing (Prentice Hall 1989) ("El Wakil").

VI. Claims 47 and 48 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,158,949 to Walth et al. (hereinafter "Walth") in view of Liston and further in view of El Wakil.

Argument

I. The rejection of claims 1, 4, 11, 12, 13, 47, and 48 under 35 U.S.C. § 112, second paragraph, is improper

At pages 2 and 3 of the final Office Action mailed January 11, 2006 ("Office Action"), claims 1, 4, 11, 12, 13, 47, and 48 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Appellants respectfully traverse this rejection because the Examiner has failed to use the proper examination standard set forth in M.P.E.P.

"A fundamental principle contained in 35 U.S.C. § 112, second paragraph is that applicants are their own lexicographers. They can define in . . . whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art." M.P.E.P. § 2173.01. "Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire." M.P.E.P. § 2173.02.

With respect to claim 1, the Examiner alleged that "[c]laim 1 states 'a second load [bearing] member structured and arranged for coupling to the first load bearing member'. The last 8 lines of the claim lay out a coupling means of the second load member but are not correlated with to the aforementioned limitation since the second load member may or may not be coupled to the first load bearing member." (Office Action at 2.) Appellants respectfully disagree.

The last 8 lines of claim 1 include, for example, "a second load bearing member structured and arranged for coupling to the first load bearing member," which clearly correlates "the first load bearing member" and "the second load bearing member" to a

coupling relationship. Accordingly, the Section 112 rejection of claim 1 should be withdrawn.

With respect to claim 12, the Examiner alleged that "[c]laim 12 fails to define the orientation of the centerline axis of the plates. For example the centerline could be that of the longitudinal plane the plates are in or it could be perpendicular to longitudinal plane of the plates (stacked plates)." (Office Action at 3) Appellants respectfully disagree. A broad claim is not necessarily an indefinite claim. Appellants submit that both orientations listed by the Examiner, as well as other orientations, may be included in claim 12 as understood by those skilled in the art. Accordingly, the Section 112 rejection of claim 12 should be withdrawn.

With respect to claim 13, the Examiner alleged "[c]laim 13 recites the limitation 'said first bearing member' in line 2. There is insufficient antecedent basis for this limitation in the claim. For sake of examination it is assumed applicant meant, 'said first load bearing member'." (Office Action at 3.) Appellants point out that this same rejection was included in the Office Action mailed October 18, 2005, and Appellants have since amended claim 13 according to the Examiner's suggestion to recite "said first load bearing member." Therefore, because claim 13 does not currently recite "said first bearing member" in line 2, the Section 112 rejection of claim 13 is mistaken and should be withdrawn.

With respect to claims 4, 11, 47, and 48, although the Examiner does not state reasons for rejection, Appellants respectfully submit that, for at least the same reasons stated above regarding to the Section 112 rejection of claims 1, 12, and 13 and/or the

reasons stated below regarding to the Section 101 rejection of claims 4, 11, 47, and 48, the Section 112 rejection of claims 4, 11, 47, and 48 should also be withdrawn.

II. The rejection of claims 4, 11, 47, and 48 under 35 U.S.C. § 101 is improper

At page 3 of the Office Action, claims 4, 11, 47, and 48 were rejected under 35 U.S.C. § 101. Appellants respectfully traverse this rejection because the Examiner has failed to use proper examination standards set forth in M.P.E.P.

The Examiner alleged that "[c]laims 4, 11, 47, and 48 are rejected under 35 U.S.C. § 101 because the claim overlaps two different statutory classes of invention (apparatus and process/method). See MPEP 2173.05p(II)." (Office Action at 3.) Appellants respectfully disagree.

M.P.E.P. § 2173.05(p)(II) states that "[a] single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph." M.P.E.P. § 2173.05(p)(II), emphasis added. However, none of claims 4, 11, 47, and 48 recites any method steps of using "a load bearing arrangement," as required by claims 4 and 11, or "a load bearing member," as required by claims 47 and 48.

Claim 4 recites, for example, "wherein said support member is laser welded to said end," to define a relationship between the support member and the end. This clearly recites a structure limitation. Appellants submits that this claim limitation implies structure that should be considered when assessing the patentability of claims over the prior art. Independent claim 1 requires a structural inertia weld between the claimed head member and skirt member. This type of process limitation imparts distinctive structural characteristics to the piston that can be identified by proper inspection of the piston. This type of structural limitation is expressly recognized in the very M.P.E.P. section referenced by the Examiner in the outstanding Office Action. In particular,

M.P.E.P. § 2133 refers to In re Gamero, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) as holding "interbonded by interfusion" to limit structure of the claimed composite and noting that terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of construction as structural limitations. Structures that are laser welded possess certain physical attributes that are particular to laser weldment but not to non-laser weldment as understood by those skilled in the art.

Claim 11 recites, for example, "wherein said reinforcement structure is laser welded to said at least one of said pair of side plates," to define a relationship between the reinforcement structure and the side plates. This also clearly recites a structure limitation.

Claim 47 recites, for example, "at least one bearing, pressure-fitted in the support member, structured to receive a pin," to add a member to the structure of the load bearing member. This again clearly recites a structure limitation. Claim 48 depends from claim 47 and therefore include the same above element.

The Examiner seems to suggest that because the above listed claims use verbs, the claims cannot recite functional limitations. Even if this suggestion is true (which it is not), such functional limitations do not inherently make the claims indefinite. "Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). A functional limitation must be evaluated and considered, just like any other limitation of the claim, ... A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step." M.P.E.P. § 2173.05(g). As explained above, the recited elements in claims 4, 11, 47,

and 48 are used to define particular structural relationships and purposes of structural members.

Therefore, the Examiner has failed to apply the proper exam standards set forth in the M.P.E.P, and claims 4, 11, 47, and 48 do not overlap two different statutory classes. Accordingly, the Section 101 rejection of claims 4, 11, 47, and 48 should be withdrawn.

III. The rejection of claims 1, 4-9, 11, 13, 14, 31-34, 47, and 48 under 35 U.S.C. § 103(a) as being unpatentable over Peterson in view of Liston is improper

At pages 3-5 of the Office Action, claims 1, 4-9, 11, 13, 14, 31-34, 47, and 48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peterson in view of Liston. Appellants respectfully traverse this rejection because the Examiner has failed to establish a *prima facie* case of obviousness.

A. Peterson and Liston fails to teach or suggest all elements of claim 1

Independent claim 1 recites a combination including, for example, "said support member having a second yield strength greater than said first yield strength [of said second load bearing member]." Peterson fails to teach at least this claim element as recited in claim 1, as conceded by the Examiner by stating that "Peterson is silent on the whether the second yield strength is greater than said first yield strength." (Office Action at 4.) However, the Examiner alleged that "Liston teaches bearing sections having higher yield strength in order to improve performance and durability. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Peterson by Liston to have the second yield strength be greater than said first yield strength in order to improve performance and durability." (Office Action at 4.) Appellants respectfully disagree.

Liston teaches "[a]n improved bearing assembly [that] includes a superhard polycrystalline superlattice coating disposed on one or more surfaces." Liston, abstract. "The bearing assembly surface 70 is shown to include a superlattice-type polycrystalline composite coating 74 having advantageous mechanical properties." Liston, column 9, lines 29-31, emphasis added. Further, Liston states that "harder base materials are superior in terms of durability and performance," and "[t]he most effective wear

resistance is typically imparted where all bearing assembly surfaces, such as an outer race, an inner race and a roller element are coated with the coating set forth herein." Liston, column 9, lines 18-19, and column 8, lines 57-63, emphasis added.

Therefore, Liston teaches using a superhard composite coating to improve wear resistance of the base material by increasing the hardness. See Liston, column 9, lines 20-25. However, relative hardness does not correspond to relative yield strength, at least because relative hardness relates to durability while relative yield strength relates to tensile stress. In fact, certain materials, such as ceramic, have a high hardness but a low yield strength. Thus, although Liston teaches disposing composite coating 74 on bearing assembly surface 70 and that coating 74 has a higher hardness than surface 70, such teaching does not constitute "said support member having a second yield strength greater than said first yield strength [of said second load bearing member]," as recited in claim 1.

The Examiner also alleges that "[t]he references sent previously, such as 'Material Hardness', show that the hardness teachings apply to yield strength." (Office Action at 10.) Appellants respectfully disagree. The Examiner seems to refer to the references in the advisory action mailed February 10, 2005, "Material Hardness," and "Material Definitions."

Even in the documents cited by the Examiner, "yield strength" and "Brinell Hardness" are two different terms. "Yield strength" refers to "[a] value determined through actual destructive testing that indicates the amount of resistance to permanent deformation (bending). A material that is stressed to a point below its yield strength, will return to its original state when the stress is removed." Material Definitions. On the

other hand, "Brinell hardness" refers to "[a] value determined by testing used to compare the hardness of different materials. A material with a high Brinell number will have a higher surface hardness, and therefore resists wear better than a material with a lower Brinell number." Material Definitions.

B. No motivation to combine Peterson and Liston with respect to claim 1

The Examiner alleged that "Liston teaches bearing sections having higher yield strength in order to improve performance and durability. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Peterson by Liston to have the second yield strength be greater than said first yield strength in order to improve performance and durability." (Office Action at 4.) Appellants respectfully disagree.

As set forth above, Liston fails to teach or suggest relative yield strength. However, even assuming, *arguendo*, that Liston teaches bearing sections having higher yield strength, there is no motivation to combine Liston's teaching with Peterson's teaching to teach "said support member having a second yield strength greater than said first yield strength [of said second load bearing member]," as recited in claim 1.

Claim 1 explicitly recites "said support member having an opening sized to receive a bearing." That is, the support member recited in claim 1 is not a bearing section because the support member is to receive a bearing. If anything, Liston may teach to improve the hardness of the bearing that is to be received by the support member. However, Liston cannot be used to suggest higher hardness for the support member when the support member itself includes an opening sized to receive a bearing.

Moreover, in Liston, the superhard coating is an integral part of the bearing assembly surface 70. That is, the coating itself cannot exist without the assembly surface 70 and thus is dependent upon the assembly surface 70. Therefore, Liston teaches away from having an independent "support member having a second yield strength," as recited in claim 1. In fact, Liston's teaching of the superhard coating coated surface cannot be combined with Peterson's teaching of using separate structures because a dependent coating cannot be used as an independent support memeber.

C. A prima facie case of obviousness has not been established with respect to claim 1

As set forth above, Peterson in view of Liston fails to teach or suggest all of the elements of independent claim 1, and there is no motivation to combine Peterson and Liston. Therefore, neither Peterson nor Liston, taken alone or in any reasonable combination, teaches or suggests all elements of Appellants' invention, as recited in claim 1. A *prima facie* case of obviousness has not been established. Accordingly, the rejection of claim 1 should be withdrawn.

D. The 103(a) rejection of claims 4-9, 11, 13, 14, 31-34, 47, and 48 should be withdrawn

As explained above, claim 1 is allowable over Peterson in view of Liston. Because claims 4-9, 11, 13, and 14 depend from claim 1, either directly or indirectly, the Section 103(a) rejection of claims 4-9, 11, 13, and 14 should also be withdrawn for at least the same reasons stated above. Further, independent claims 31 and 47, while of different scope, recite similar language to that of claim 1. For example, claim 31 recites "at least one support member contained within the aperture adjacent to at least a portion of the aperture wall and the support member having a second yield strength

greater than said first yield strength," and claims 47 recites "at least one support member comprising a material having a second yield strength, wherein the support member is contained within the aperture adjacent to at least a portion of said aperture wall and the second yield strength is greater than the first yield strength." Claims 31 and 47 are therefore also allowable over Peterson in view of Liston. Thus, the Section 103(a) rejection of claims 31 and its dependent claims 32-34 and the Section 103(a) rejection of claim 47 and its dependent claim 48 should also be withdrawn.

IV. The rejection of claim 10 under 35 U.S.C. § 103(a) as unpatentable over Peterson in view of Liston and Yancy is improper

At page 6 of the Office Action, claim 10 was rejected under 35 U.S.C. § 103(a) as unpatentable over Peterson in view of Liston and further in view of Yancy. Appellants respectfully traverse this rejection because the Examiner has failed to establish a *prima facie* case of obviousness.

Claim 10 depends from claim 1. As set forth above, Peterson and Liston fail to teach or suggest at least "said support member having a second yield strength greater than said first yield strength [of said second load bearing member]," as recited in claim 1 and required by claim 10. Further, even assuming that "Yancy teaches providing 'L' shaped rib portions 31 (figures 4, 6) in order to reinforce a load bearing member," (Office Action at 6), which Appellants do not agree, Yancy fails to teach or suggest at least "said support member having a second yield strength greater than said first yield strength [of said second load bearing member]," as recited in claim 1 and required by claim 10.

Therefore, none of Peterson, Liston, and Yancy, taken alone or in any reasonable combination, teaches or suggests all elements of Appellants' invention, as recited in claim 1 and required by claim 10. The Section 103(a) rejection of claim 10 should be withdrawn.

V. The rejection of claims 4, 11, and 48 under 35 U.S.C. § 103(a) as unpatentable over Peterson in view of Westbroek and El Wakil is improper

At page 6 of the Office Action, claims 4, 11, and 48 were rejected under 35 U.S.C. § 103(a) as unpatentable over Peterson in view of Westbroek and further in view of El Wakil. Appellants respectfully traverse this rejection because the Examiner has failed to establish a *prima facie* case of obviousness.

Claims 4 and 11 depend on claim 1, either directly or indirectly, and claim 48 depends from claim 47. As set forth above, Peterson fails to teach or suggest at least "said support member having a second yield strength greater than said first yield strength," as recited in claim 1, and "the second yield strength is greater than the first yield strength," as recited in claim 47.

The Examiner alleged that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Peterson by El Wakil and Westbroek to have weldments being simulated for effects of heat in order to choose prior to construction the correct type of weld and to insure the strength of the welded structure." (Office Action at 7, emphasis added.) However, claims 4, 11, and 48 do not recite "weldments being simulated for effects of heat." Moreover, El Wakil and Westbroek fail to teach or suggest at least "said support member having a second yield strength greater than said first yield strength," as recited in claim 1, and "the second yield strength is greater than the first yield strength," as recited in claim 47.

Therefore, none of Peterson, El Wakil, and Westbroek, taken alone or in any reasonable combination, teaches or suggests all elements of Appellants' invention, as recited in claims 1 and 47 and required by claims 4, 11, and 48. The Section 103(a) rejection of claims 4, 11, and 48 should be withdrawn.

VI. The rejection of claims 47 and 48 under 35 U.S.C. § 103(a) as unpatentable over Walth in view of Liston and El Wakil is improper

At page 7 of the Office Action, claims 47 and 48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Walth in view of Liston and further in view of El Wakil. Appellants respectfully traverse this rejection because the Examiner has failed to establish a *prima facie* case of obviousness.

Independent claim 47 recites a combination including, for example, "at least one support member comprising a material having a second yield strength, wherein the support member is contained within the aperture adjacent to at least a portion of said aperture wall and the second yield strength is greater than the first yield strength; and at least one bearing, pressure-fitted in the support member, structured to receive a pin." (emphases added.) As conceded by the Examiner, "Walth is silent on the whether the second yield strength is greater than said first yield strength." (Office Action at 8.)

Also as set forth above, Liston fails to teach or suggest at least "the second yield strength is greater than the first yield strength," as recited in claim 47. Further, even assuming "El Wakil teaches (pages 85-87) laser welding as a versatile means of connecting items without causing excessive heat realted problems (page 86)," (Office Action at 8), El Wakil fails to teach or suggest at least "the second yield strength is greater than the first yield strength," as recited in claim 47. Moreover, none of Walth, Liston, and El Wakil teaches or suggests "at least one bearing, pressure-fitted in the support member, structured to receive a pin," which was not addressed in the Office Action mailed January 11, 2006.

Therefore, none of Walth, Liston, and El Wakil, taken alone or in any reasonable combination, teaches or suggests all of the elements of Appellants' invention, as recited

in claim 47. Therefore, a *prima facie* case of obviousness has not been established, and the Section 103(a) rejection of claim 47 should be withdrawn. Because claim 48 depends from claim 47, the 103(a) rejection of claim 48 should also be withdrawn for at least the same reasons noted above with respect to claim 47.

Conclusion

For the reasons given above, pending claims 1, 4-14, 31-34, 47, and 48 are allowable over the Examiner's applied references. Reversal of the Examiner's rejections is respectfully requested.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: June 12, 2006

By: _____
Wenye Tan
Reg. No. 55,662

Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)

1. A load bearing arrangement for use with a work machine of the type having a platform, comprising:

a first load bearing member structured and arranged for coupling to the platform;

a second load bearing member structured and arranged for coupling to the first load bearing member;

said second load bearing member having an end comprising a material having a first yield strength;

an aperture formed in said end and having an aperture wall;

at least one support member contained within said aperture adjacent to at least a portion of said aperture wall, said support member having an opening sized to receive a bearing; and

said support member having a second yield strength greater than said first yield strength.

4. The load bearing arrangement as set forth in claim 1 wherein said support member is laser welded to said end.

5. The load bearing arrangement as set forth in claim 1 wherein the first load bearing member comprises:

at least one top plate;

at least one bottom plate; and

at least one pair of spaced apart side plates each attached to said top plate and said bottom plate.

6. The load bearing arrangement as set forth in claim 5 wherein said top plate comprises at least one integral mounting structure.

7. The load bearing arrangement as set forth in claim 5 further comprising:

a substantially cylindrical attachment structure extending from at least one of said pair of side plates; and

wherein said at least one of said pair of side plates is attached to said attachment structure.

8. The load bearing arrangement as set forth in claim 7 wherein:

said first load bearing member has a transverse width; and

said attachment structure spans said transverse width.

9. The load bearing arrangement as set forth in claim 5 further comprising at least one reinforcing structure attached to at least one of said pair of side plates.

10. The load bearing arrangement as set forth in claim 9 wherein said reinforcing structure comprises:

a base portion; and

a rib portion extending from said base portion such that the cross section of the reinforcing structure is "L" shaped.

11. The load bearing arrangement as set forth in claim 9 wherein said reinforcement structure is laser welded to said at least one of said pair of side plates.

12. A load bearing arrangement for use with a work machine of the type having a platform, comprising:

at least one load bearing member structured and arranged for coupling to the platform, wherein

said load bearing member comprises a first side and a second side;

one of said first side or said second side comprises a plurality of side plates;

each said side plate having a centerline axis; and

at least two adjacent side plates, each having a different thickness, on one of said first side or said second side are coupled together such that said centerline axis of each said side plate are colinear.

13. The load bearing arrangement as set forth in claim 1 further comprising an attachment pivotally coupled to said first load bearing member.

14. The load bearing arrangement as set forth in claim 13 wherein said attachment comprises a bucket.

31. A load bearing apparatus, comprising:

a work machine having a platform;

at first member, having a longitudinal axis, coupled to said platform;

a first movement means for moving said first member relative to said platform;

a second member, having a longitudinal axis, pivotally coupled to said first member;

a second movement means for moving said second member relative to said first member;

a first end attached to the second member and comprising a material having a first yield strength;

an aperture formed in the first end and having an aperture wall;

at least one support member contained within the aperture adjacent to at least a portion of the aperture wall; and

the support member having a second yield strength greater than said first yield strength.

32. The load bearing apparatus as set forth in claim 31 wherein said first and said second movement means comprises hydraulic cylinders.

33. The load bearing apparatus as set forth in claim 31 further comprising an attachment attached adjacent a second end of said second member.

34. The load bearing apparatus as set forth in claim 33 wherein said attachment comprises a bucket.

47. A load bearing member in a load bearing arrangement for use with a work machine, comprising:

an end comprising a material having a first yield strength;

an aperture, having an aperture wall, formed in the end;

at least one support member comprising a material having a second yield strength, wherein the support member is contained within the aperture adjacent to at least a portion of said aperture wall and the second yield strength is greater than the first yield strength; and

at least one bearing, pressure-fitted in the support member, structured to receive a pin.

48. The load bearing member according to claim 47, wherein the support member is laser welded to the end.

Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

None

Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)

None